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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,747	07/02/2003	James E. Wagner	2002B092/2	5545
23455	7590	10/06/2004	EXAMINER	
EXXONMOBIL CHEMICAL COMPANY			TESKIN, FRED M	
P O BOX 2149			ART UNIT	
BAYTOWN, TX 77522-2149			PAPER NUMBER	
			1713	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/612,747	WAGNER ET AL.	
	Examiner	Art Unit	
	Fred M Teskin	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13, 16-37 and 40-49 is/are allowed.
- 6) ☒ Claim(s) 14, 15, 38, 39, 50 and 51 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>070203</u> . | 6) <input type="checkbox"/> Other: ____. |

Claims 1-51 are currently pending and under examination herein.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15, 38, 39, 50 and 51 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either of US 5739266 to Piana and US 6147167 to Mack et al.

Claims 14 and 15 are respectively drawn to a polyethylene resin formed by the process of claim 1 and a polyethylene film comprising the resin thus formed.

More specifically, the claimed polyethylene resin is formed by conveying the resin downstream through a melt-mixing device, contacting the resin with oxygen in an amount of at least 40 ppm by weight resin, and contacting the resin with a primary antioxidant, wherein the antioxidant-contacting step is carried out downstream of the oxygen-contacting step.

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Piana exemplifies polyethylene film made from homopolyethylene that has been mixed with additives and contacted with defined volumes of oxygen in the feed hopper of an extruder during pelletization. See Example 1 in column 8. Further, from Table 1 (col. 9) it is apparent the additives include long-term, or primary, antioxidants (i.e., Irganox 1010 and 1076). Thus, like the instantly claimed products, Piana's pelletized resin and resultant film comprise oxygen-treated polyethylene resin comprising a primary antioxidant.

As to claims, 38-39 and 50-51, Mack et al describe a polyethylene film composition characterized by a broad, bimodal molecular weight distribution, a ratio $M_w/M_n \geq 15$ and a preferred density range of 0.940 to 0.970 g/cc (col. 4, lines 17+), these properties corresponding to those of applicants' polyethylene resin (*cf.*, specification at [0013]-[0015]). The patentees' film-forming material is a linear ethylene copolymer that was blended with additives including a primary antioxidant (Irganox 1010; see col. 5, lines 10-20) and contacted with various amounts of oxygen in the feed hopper of an extruder (*Id.*, lines 24-30). Thus, like the products of claims 38-39 and 50-51, the ethylene copolymer and film of Mack et al comprise oxygen-treated polyethylene resin admixed with a primary antioxidant.

While examiner notes the prior art products were made by a different process to applicants', there is no objective evidence of record relating any preparational difference (e.g., different order of contacting polyethylene with oxygen and primary antioxidant) to an actual and unobvious difference in the ultimate products, compared to the reference products (polyethylene resin and film). Where, as here, a product-by-process claim is

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rejected over a prior art product that appears to be identical, although produced by a different process, the burden properly shifts to applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 195 (Fed. Cir. 1983). This is especially true given the lesser burden of proof on the Office in making out a case of *prima facie* obviousness for product-by-process claims, because of their peculiar nature (M.P.E.P. 2113).

Claims 1-13, 16-37 and 40-49 are allowable over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter: Claim 1 is drawn to a process for oxygen-tailoring or extruding polyethylene resin, which includes the steps of (a) conveying polyethylene resin in a downstream direction through a feed zone, a melt-mixing zone downstream of the feed zone and a melt zone downstream of the melt-mixing zone; (b) contacting the resin with at least 40 ppm O₂ per weight resin and (c) contacting the resin with primary antioxidant, wherein step (c) is carried out downstream of step (b). Independent claims 16 and 40 are correspondingly limited as to contacting order and minimum concentration of O₂. Examiner has not found a process employing the claimed contacting sequence with the requisite ppm (wt) O₂ to be disclosed or fairly suggested in the prior art.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be

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reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


FRED TESKIN
PRIMARY EXAMINER
1713

FMTeskin/09-28-04